# Operating Instructions

Bedienungsanleitung
Mode d'emploi
Brugsvejledning

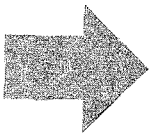
MODEL NO. RF-2900 LBS/LBE

FM/LW/MW/SW 6-BAND PORTABLE RADIO

National Panasonic

Read these instructions completely before operating this set.

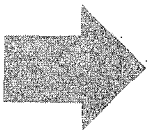
Your new Panasonic radio receiver was manufactured and assembled under exacting quality control standards.
The incorporation of the latest advances in radio design and the use of the most modern components ensure outstanding performance with superb sensitivity and tone quality.
Just a few minutes of your time spent reading carefully through these instructions will assure your obtaining optimum performance that will bring you continued enjoyment for many years.



3–7

---

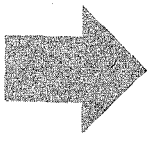
Ihr neuer Panasonic Rundfunkempfänger wurde unter strenger Qualitätskontrolle hergestellt und zusammengebaut.
Durch Anwendung der neuesten Verbesserungen auf dem Gebiet der Radio-Konstruktion und Verwendung der modernsten Bauteile ist eine hervorragende Leistung mit ausgezeichneter Empfindlichkeit und Klangqualität gewährleistet.
Wenn Sie nur einige Minuten Ihrer Zeit für ein sorgfältiges Durchlesen dieser Bedienungsanleitung verwenden, können Sie eine optimale Leistung erzielen, die Ihnen jahrelanges Hörvergnügen bieten wird.



8–12

---

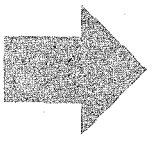
Votre nouveau récepteur radio Panasonic a été fabriqué et assemblé sous des normes très sévères de contrôle de la qualité.
L'intégration des tous derniers progrès en montage radio et l'emploi des composants les plus modernes garantissent les remarquables performances de sa sensibilité superbe et de sa qualité sonore.
Accordez quelques minutes de votre temps précieux à la lecture attentive de cette brochure; vous pourrez ainsi obtenir les meilleures performances de cet appareil, conçu pour vous apporter un plaisir continu pendant de nombreuses années.



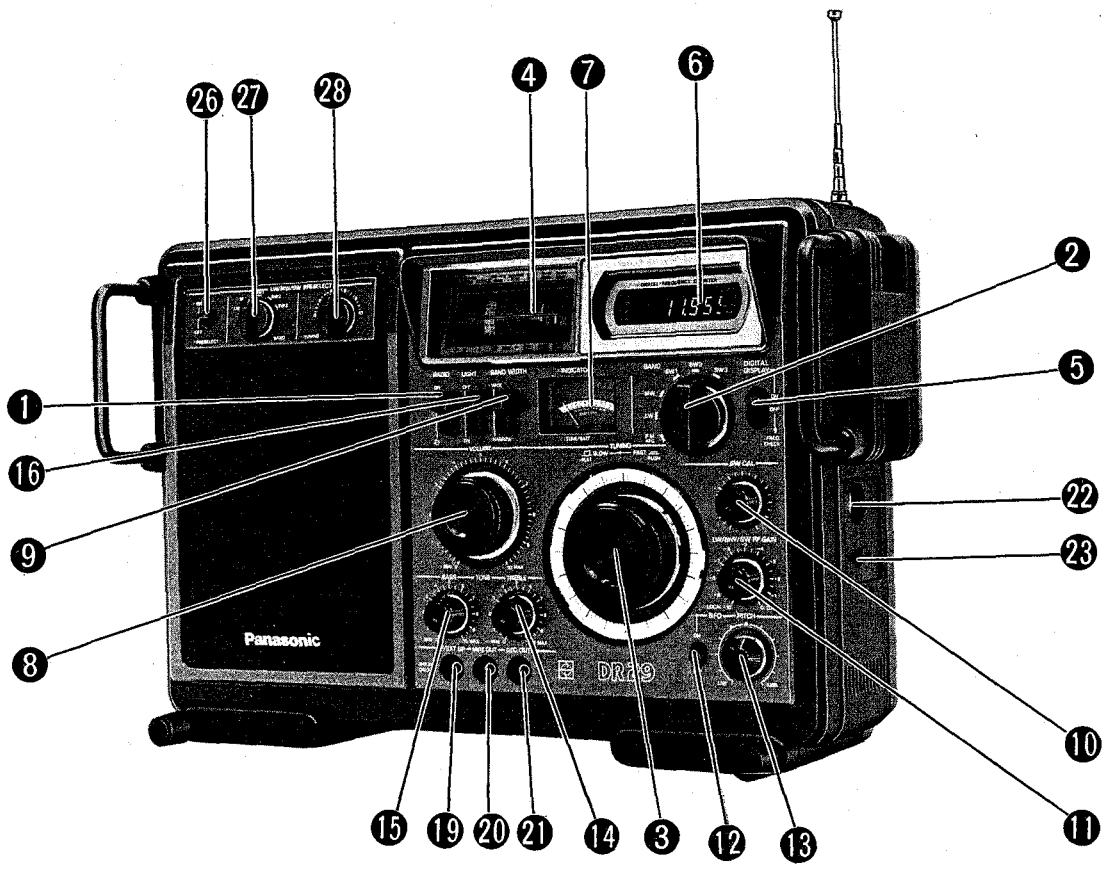
13–17

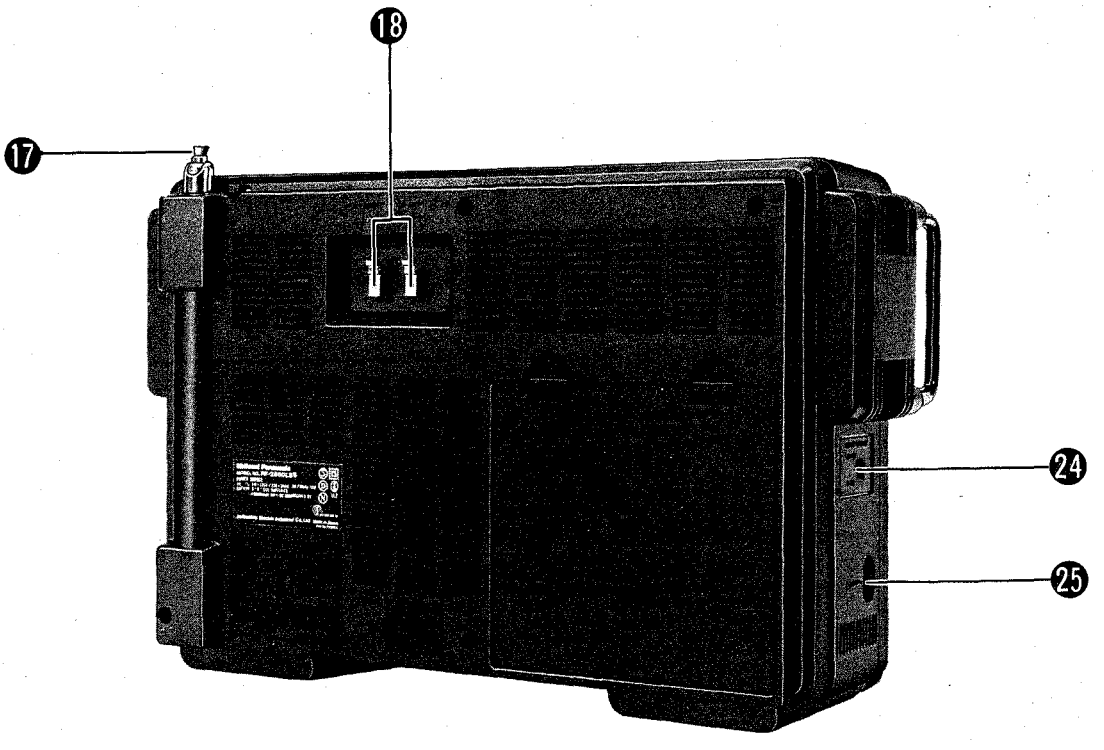
---

Denne Panasonic radiomodtager, som De nu har købt, er fremstillet på fabrikken under den mest omhyggelige kvalitetskontrol.
Savel i dens formgivning som den tekniske konstruktion er der anvendt de mest moderne og avancerede komponenter for at give radioen størst mulige stabilitet, folsomhed og lydkvalitet.
Brug nogle minutter på at læse denne brugsvejledning omhyggeligt, så De kan få det fulde udbytte og glæde af apparatet.



18–22


26
27
28
4
7
6
2
1
5
16
22
9
23
8
10
15
19
20
21
14
3
12
13
11
Panasonic
DR-29


18
17
24
25

## CONTROLS AND FUNCTIONS

**❶ Radio On/Off Switch**
Turns the receiver on and off.

**❷ Band Selector**
Set to the desired band.

**❸ Tuning Control**
Tune in the desired station. This control features two-speed tuning. For precise tuning (particularly on SW), pull the control out to reduce the tuning speed. To restore the normal speed, push the control back in.

**❹ Tuning Dial**

**❺ Digital Display Switch**
Turns the Digital Frequency Counter❻ on and off. For continuous display, set the switch to ON (up); for temporary display, presss the switch down.
**Note:** This switch should be at OFF to save the battery power except when tuning.

**❻ Digital Frequency Counter**
Indicates the tuned frequency in MHz on FM and SW bands, and in kHz on LW and MW bands.

**❼ Tuning/Battery Indicator**
Acts as tuning and battery check meter. When a station received, the pointer deflects to the left showing the relative strength; the stronger the station's signal, the greater the deflection to the left. When no station is received, the meter indicates the battery condition (see page 4).

**❽ Volume Control**
Adjust to a pleasant listening level.

**❾ Bandwidth Switch**
If the reception of an AM (LW, MW and SW) station is marred by interference from an adjacent station, set the switch to NARROW (down). Normaly, keep it at the WIDE (up) position.

**❿ SW Calibrator**
Functions for SW reception only. If the frequency of a optimally tuned station does not tally with the display reading, correct the error by turning this calibrator. (For calibration, see page 5).

**⓫ RF Gain Control**
Adjust the receiver sensitivity for LW, MW or SW reception. Normally, keep it to the fully-clockwise position. If the station is strong enough to cause overloading or distortion in the receiver, slowly rotate this control counterclockwise until the sound becomes clear. This control has no effect on FM.

**⓬ BFO Switch**
Turns the BFO (Beat Frequency Oscillator) on and off. For SSB or CW reception on SW, set the switch to ON. When receiving neither SSB nor CW, be sure to keep the switch at OFF. (See page 5.)

**⓭ BFO Pitch Control**
Used to receive SSB and CW signals. Properly tune to the desired SSB or CW signals with the BFO Switch⓬ ON, then carefully rotate this control for optimum signal reception. (See page 5.)

**⓮ Treble Control**
Regulates the high tone.

**⓯ Bass Control**
Regulates the low tone.

**⓰ Light Switch**
When tuning in the dark, push to ON. The Tuning/Battery Indicator❼ and the Tuning Dial❹ will light up. Turn off when illumination is not necessary.

**⓱ Telescopic Antenna**
Functions for FM and SW reception. Extend it and adjust its angle and length for optimum reception.
**Note:** When lowering the Telescopic Antenna, always begin with the thickest section first to avoid buckling or bending.

**⓲ External Antenna Terminals**
Effective for the FM and SW bands. If the desired station is too weak or too distant for the receiver to provide satisfactory reception, connect an appropriate external antenna (and an earth wire) to these terminals. (See page 6.)

**⓳ Earphone/External Speaker Jack**
Used to connect the accessory earphone or optional external speaker (impedance: 8 ohms). Inserting the plug into this jack disconnects the built-in speaker. To store the earphone, use the earphone storage pocket inside the battery compartment.

**⓴ Multiplex Output Jack**
Used to connect an FM stereo multiplex adaptor for enjoyment of FM stereo programs.

**㉑ Recording Output Jack**
Used to connect a tape recorder for recording radio programs. Connect a suitable cord from this jack to the input terminal on your tape recorder. You can record while listening to radio programs at the desired volume level. The sound level at this jack is fixed and therefore the recording level should be adjusted by using the control(s) on the tape recorder being used. Stereo recording is not possible.

**㉒ DIN Jack**
Used to connect external audio equipment (such as a tape deck, record player, or amplifier) with a DIN connector.

**㉓ Radio/Phono Selector**
RADIO...Radio signals are fed out and they can be recorded onto the tape deck or amplified with the amplifier connected to the DIN Jack㉒.
PHONO...The receiver functions as an amplifier and amplifies the sound program from another unit (such as a record player or tape deck) connected to the DIN Jack㉒.
**Note:** To listen to the radio, set this selector to RADIO.

**㉔ AC Voltage Selector** (RF-2900LBS only)
Set to your local voltage by turning this selector with a screwdriver. When operating on AC (household current), make sure this selector is properly adjusted. (See page 4.)

**㉕ AC Input Jack**
To operate the unit on AC power, connect this jack to a household AC electrical outlet with the accessory AC power cord. When this jack is connected, the internal batteries are automatically disconnected.

### ㉖ Preselector Switch (ON-OFF)

Set this Switch to "ON" to get better reception.

ON- When the telescopic antenna or external antenna is used through the preselector circuitry, set to this position.

OFF- The preselector functions don't work.

* But this setting enables ordinary reception.

Note: * If you tune in the LW, MW or SW1-3 station by the Main Tuning Control with the Preselector Switch "ON", you may have difficulties to get the best reception. Make sure Preselector Switch is set to "OFF" before tuning in the LW, MW or SW1-3 by the Main Tuning Control.

* If you know the frequency of your desired station, you can tune in it by Preselector Tuning Control before it is broadcasted. Firstly tune in the station by the Main Tuning Control with counting the received frequency on the Digital Frequency Display. Next tune in the most noisy position by the Preselector Tuning Control. Then you will make your receiver tuned in your desired station.

### ㉗ Band Selector for Preselector (LW-MW-SW1-SW2-SW3)

Select the frequency range according to the received frequency;

| | |
|---|---|
| LW | 150– 410 kHz |
| MW | 520– 1610 kHz |
| SW1 | 3.2– 8MHz |
| SW2 | 8–16 MHz |
| SW3 | 16–30 MHz |

### ㉘ Preselector Tuning Control

Effect on only LW, MW and SW1–3. To obtain optimum reception, after presetting the Main Tuning Control at first, Preselector Switch and Band Selector, tune in your desired station by this control properly.

Note: Be sure and set both the Band Selector and the Band Selector for Preselector to the same position to guarantee the performance when you set the Preselector Switch to "ON".

## POWER SUPPLY

Your Panasonic radio receiver RF-2900LBS/LBE operates from either of two sources: AC household power, or 6 "D" size dry batteries.

### Battery Operation:

1) Open the battery compartment cover by depressing its two latches and pulling it toward you, as shown in Fig.1.

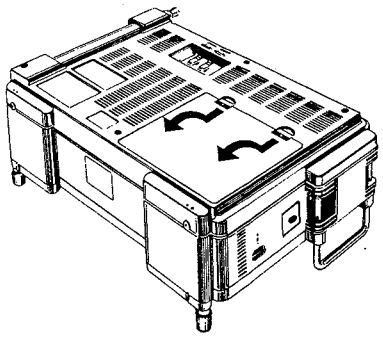


Fig.1

2) Insert 6 "D" size (National UM-1 or equivalent) batteries into the battery compartment, making sure that the polarities are aligned correctly (Fig. 2). Place them in the order shown in Fig. 2.

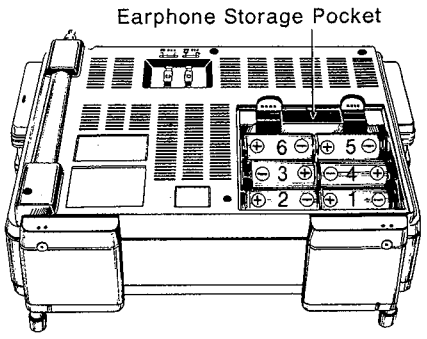



Fig.2

3) Replace the compartment cover.

**Note:** * Removing the battery numbered "6" in Fig. 2 first will make it easier to remove the other batteries.

* To operate on battery power, be sure to disconnect the AC power cord from the AC Input Jack㉕ and household AC power outlet.

**To check the battery condition:**

1) Turn the Radio On/Off Switch❶ and Digital Display Switch❺ to ON.

2) Tune to a position between stations.
The Tuning/Battery Indicator❼ will then show the battery condition.

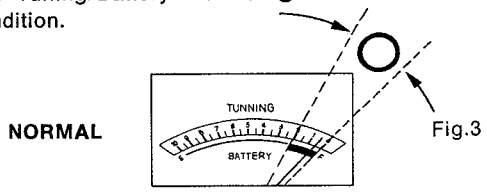



Fig.3

When the indicator points within the "○" range as shown above, the batteries can still be used.

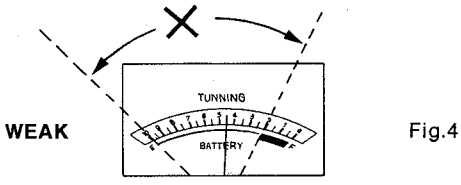



Fig.4

When the indicator points within the "×" range as shown above, replace all the batteries with new ones.

### AC Power Operation:

■ With model RF-2900LBS, first check the AC Voltage Selector㉔ to ascertain if your receiver is adjusted to your household AC voltage. If not, readjust by rotating the selector㉔ with a screwdriver.
Model RF-2900LBE is not provided with AC voltage selector, and should be powered by 240 volts only.

■ Connect the accessory AC power cord to the AC Input Jack㉕ and your household AC electrical outlet.
On plugging the power cord into the AC Input Jack㉕, operation changes from battery to AC.

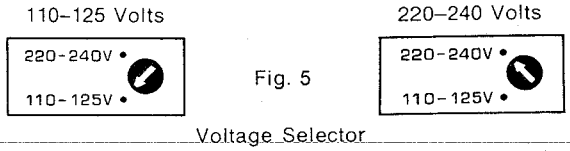



Fig. 5

Voltage Selector

**IMPORTANT (for model RF-2900LBE)**

The wires in this mains lead are coloured in accordance with the following code:

| | |
|---|---|
| Blue: | Neutral |
| Brown: | Live |

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

* The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
* The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

If a 13-amp. (BS. 1363) plug is used, a 3-amp. fuse must be fitted, or if any other type of plug is used, a 5-amp. fuse must be fitted either in the plug or adaptor or at the distribution board.

**Note:** When not in use, disconnect the power cord from the outlet.

## RECEIVER OPERATION

Operate your Panasonic RF-2900LBS/LBE radio receiver as you would with any ordinary radio. To obtain the best performance and take advantage of some of the high-performance features of the receiver, keep in mind the following operating hints.

Operate preselector function to obtain better reception for LW, MW and SW1–3. Even when setting the Preselector Switch to "OFF" position, ordinary reception can be obtained.

### FM Reception:

| (Control) | (Position) |
|---|---|
| Radio/Phono Selector㉓ | RADIO |
| Band Selector❷ | FM AFC |
| Digital Display Switch❺ | ON (only during tuning) |
| Tuning Control❸ | Desired station |
| Volume Control❽ | Desired level |
| Bass⓯ and Treble⓮ Controls | Pleasant level |

### LW or MW Reception:

| (Control) | (Position) |
|---|---|
| Radio/Phono Selector㉓ | RADIO |
| Band Selector❷ | LW or MW |
| RF Gain Control⓫ | DX (full clockwise) |
| BFO Switch⓬ | OFF |
| Preselector Switch㉖ | OFF |
| Digital Display Switch❺ | ON (only during tuning) |
| Tuning Control❸ | Desired station |

**• To obtain better reception**

| | |
|---|---|
| Preselector Switch㉖ | ON |
| Band Selector for Preselector㉗ | SW1, SW2 or SW3 |
| Preselector Tuning Control㉘ | Proper position |
| Volume Control❽ | Desired level |
| Bass⓯ and Treble⓮ Controls | Pleasant level |

### SW Reception:

| (Control) | (Position) |
|---|---|
| Radio/Phono Selector㉓ | RADIO |
| Band Selector❷ | SW1, SW2 or SW3 |
| SW Calibrator⓾ | Center |
| RF Gain Control⓫ | DX (full clockwise) |
| BFO Switch⓬ | OFF |
| Preselector Switch㉖ | OFF |
| Digital Display Switch❺ | ON (only during tuning) |
| Tuning Control❸ | Desired station |

**• To obtain better reception**

| | |
|---|---|
| Preselector Switch㉖ | ON |
| Band Selector for Preselector㉗ | SW1, SW2 or SW3 |
| Preselector Tuning Control㉘ | Proper position |
| Volume Control❽ | Desired level |
| Bass⓯ and Treble⓮ Controls | Pleasant level |

**To correct a frequency display error:**

1) Tune to any SW station whose frequency is known, and make sure the frequency tallies with the display (the selected station will be detuned if there is an error in the Digital Frequency Counter❻).
2) Slowly move the SW Calibrator⓾, watching the Tuning Indicator❼, for best reception. When the meter pointer deflects to the extreme left, optimum reception is achieved and the error will be corrected.

**Note:** * At the "STD" positions on the Tuning Dial❹, the 5, 10, and 15 MHz standard frequency signals will be received, and those signals may be used for error correction.
* If the Tuning Indicator❼ pointer exceeds full scale because the signals are too strong, decrease the receiver sensitivity to the optimum tuning readout level by turning the RF Gain Control⓫ counterclockwise.

### SSB and CW Reception:

Set up the receiver in the same manner as for SW Reception, and then:

- Tune to the desired signal.
- Set the BFO Switch⓬ to ON.
- Carefully move the BFO Pitch Control⓭ back and forth until the signal becomes most understandable.

**Note:** In receiving two-way communication signals, a possible difference between the two frequencies may require another BFO Pitch Control adjustment.

---

### To reduce interference:

- Set the Bandwidth Switch❾ to NARROW (down), and retune.
- Turn the RF Gain Control⓫ counterclockwise until the interference fades away, and readjust the Volume Control❽.
- Turn the receiver in the direction which offers minimum interference.

### To decrease background noise:

- Perform external antenna and ground connections.
- Lower the treble tone by turning the Treble Control⓮ counterclockwise.
- Push the Digital Display Switch❺ to OFF to eliminate the frequency counter noise or beat note.

### Note:

* Allow about 30-minute warmup for absolutely exact and stable frequency display.
* Turning the Digital Display Switch❺ on and off may slightly shift the tuned frequency.

### Frequency Display Precision

| | |
|---|---|
| FM | ±10 kHz |
| AM (LW/MW/SW) | ±1 kHz |

## ANTENNAS

**FM:**

- Pull out the Telescopic Antenna⑰ and adjust its length and angle for optimum reception.
- If you wish to improve reception further or to receive very distant stations, connect a suitable 75–ohm FM antenna to the External Antenna Terminals⑱ on the rear, as shown in Fig. 6.

**LW and MW:**

- The highly sensitive ferrite core AM antenna in your receiver provides satisfactory LW and MW reception in most areas. For optimum reception, turn the radio in the direction which gives the best results since the ferrite core antenna is somewhat directional.

**SW (including SSB and CW):**

- Extend the Telescopic Antenna⑰ fully and keep it vertical.
- To further improve reception, perform outdoor antenna and ground connections to the terminals at the rear. (Fig. 7)

External FM Antenna

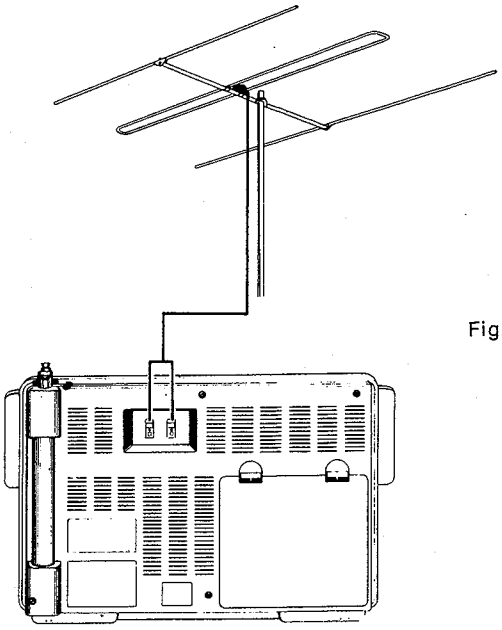


Fig. 6

External SW Antennas

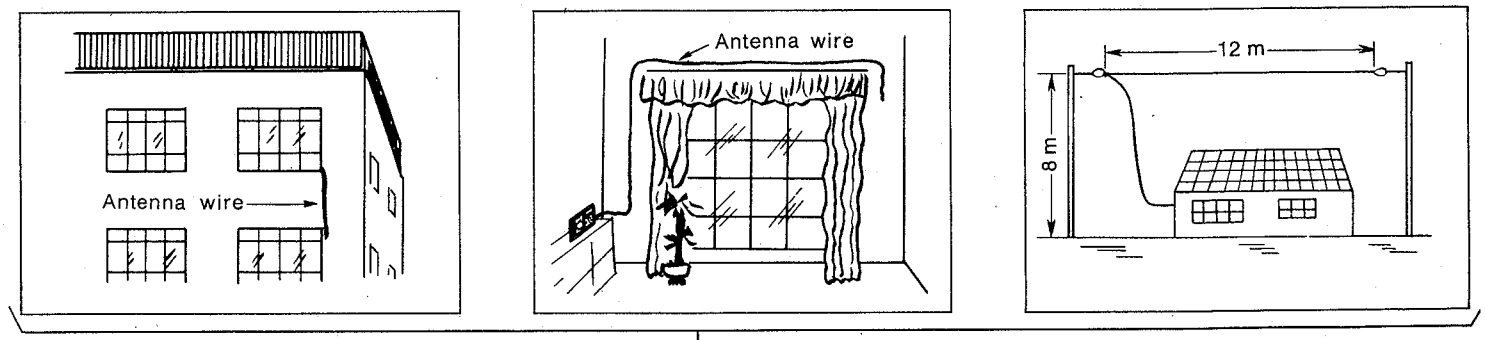



Fig. 7

How to Connect Antenna Wire to Terminal

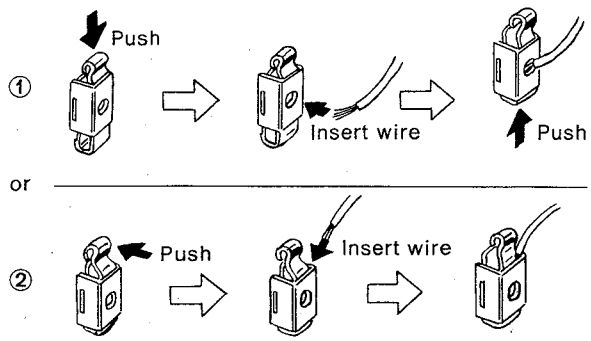
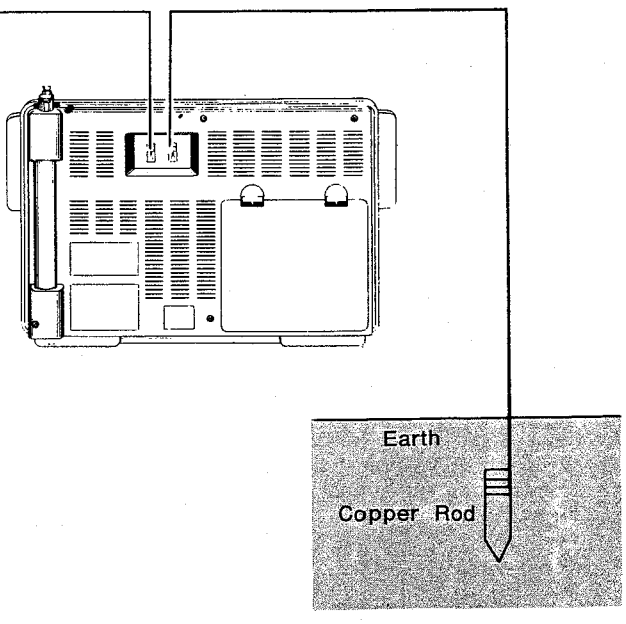



Fig. 8



## ATTACHING THE SHOULDER STRAP

Fix the accessory strap to the receiver as illustrated in the figures below. The length of the strap can be adjusted with the buckles.

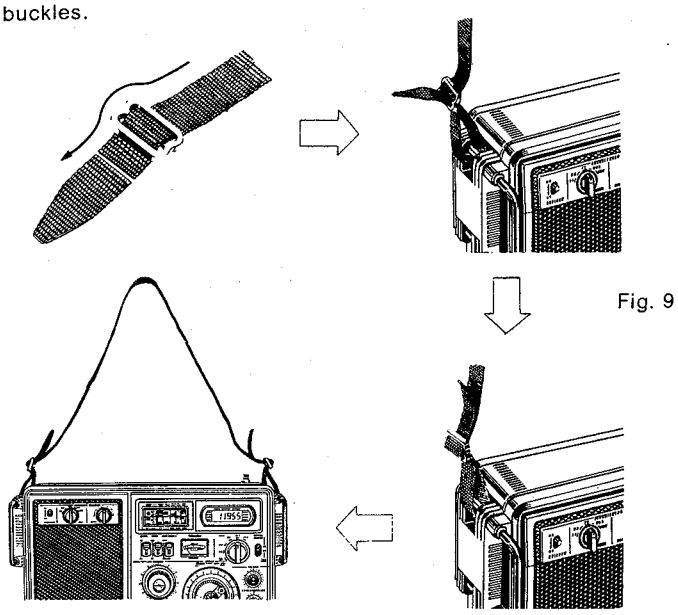


Fig. 9

## ATTACHING THE DISPLAY SHADE

Install the accessory display shade right above the frequency display panel as shown below, and this will make it easier to read the Digital Frequency Counter❻ when it is in the sun.

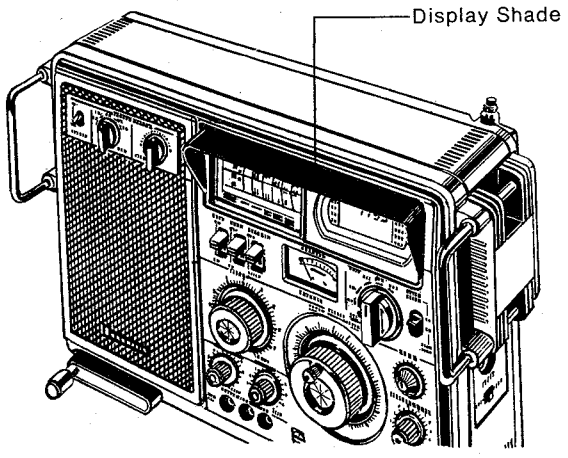



Fig. 10

## PRECAUTIONS

For your safety and to prevent damage to the set:

- Do not connect the set to an AC outlet other that supplying the specified voltage.
- Avoid cuts, scratches, or poor connections in the AC power cord which may result in possible fire or electric shock hazard. Also, excessive bending, pulling, or slicing of the cord should be avoided.
- Do not unplug the AC power cord by pulling on the cord. To do so may cause premature failure or shock hazard.
- Do not operate the set on AC power in a bathroom or swimming pool since there is the possibility of shock hazard.

## HELPFUL HINTS

- If the set is not in use for a long time or if it is used only from an AC power source, remove all the self-contained batteries to prevent potential damage due to possible battery leakage.
- When the volume begins to fall, it is advisable to replace all the batteries with new ones before they discharge completely.
- Do not subject the set to a temperature of over 60°C (140°F), because the characteristics of the internal parts may be adversely affected by heat. In particular, never leave the set in a car exposed to direct sunlight for a long time with all the doors and windows colsed. The cabinet may become disfigured, and the performance may deteriorate.
- Do not use benzine, thinner, or the like, or any abrasive powder to clean the cabinet. Wipe it with a soft cloth dipped in a diluted solution of soap and water.

---

- Även om strömbrytaren är i "OFF"-läge, har fortfarande en del av apparaten natspanning, Kontrollera att ni tar ut nätsladden ur vägguttaget innan ni tar bort bakstycket.

## SPECIFICATIONS

| | |
|---|---|
| Power Source: | DC 9V: 6 "D" size (National UM-1 or equivalent) batteries |
| | AC 110–125/220–240V...RF-2900LBS |
| | 240V...RF-2900LBE |
| Frequency Range: | FM 87.5–108 MHz |
| | LW 150–410 kHz (2000–732 m) |
| | MW 520–1610 kHz (577–186 m) |
| | SW1 3.2–8 MHz (93.8–37.5 m) |
| | SW2 8–16 MHz (37.5–18.8 m) |
| | SW3 16–30 MHz (18.8–10 m) |
| Power Output: | DC 3 W (max.) |
| | AC 3 W (MPO) |
| IC: | 5 |
| Transistors: | 27 |
| Speaker: | 10 cm (4") PM dynamic |

Specifications subject to change without notice.